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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/696,169A

DATE: 05/16/2002

TIME: 16:04:11

Input Set : A:\new1614-0244P.ST25.txt
 Output Set: N:\CRF3\05162002\I696169A.raw

3 <110> APPLICANT: VALENTA, Rudolf et al.
 5 <120> TITLE OF INVENTION: NON-ANAPHYLACTIC FORMS OF GRASS POLLEN PH1 P 6 ALLERGEN AND
 THEIR USE
 7 <130> FILE REFERENCE: 1614-0244p
 9 <140> CURRENT APPLICATION NUMBER: 09/696,169A
 C--> 10 <141> CURRENT FILING DATE: 2002-05-06
 12 <160> NUMBER OF SEQ ID NOS: 21
 14 <170> SOFTWARE: PatentIn version 3.0
 16 <210> SEQ ID NO: 1
 17 <211> LENGTH: 29
 18 <212> TYPE: DNA
 19 <213> ORGANISM: Artificial Sequence
 21 <220> FEATURE:
 22 <223> OTHER INFORMATION: Primer derived from Phleum pratense
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 25 gggaaattcca tatgggaaag gccacgacc 29
 28 <210> SEQ ID NO: 2
 29 <211> LENGTH: 45
 30 <212> TYPE: DNA
 31 <213> ORGANISM: Artificial Sequence
 33 <220> FEATURE:
 34 <223> OTHER INFORMATION: Primer derived from Phleum pratense
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 42 <212> TYPE: DNA
 43 <213> ORGANISM: Artificial Sequence
 45 <220> FEATURE:
 46 <223> OTHER INFORMATION: Primer derived from Phleum pratense
 48 <400> SEQUENCE: 3
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 52 <210> SEQ ID NO: 4
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 54 <212> TYPE: DNA
 55 <213> ORGANISM: Artificial Sequence
 57 <220> FEATURE:
 58 <223> OTHER INFORMATION: Primer derived from Phleum pratense
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 66 <212> TYPE: PRT
 67 <213> ORGANISM: Phleum pratense

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72 1
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75 <211> LENGTH: 4
76 <212> TYPE: PRT
77 <213> ORGANISM: Phleum pratense
79 <400> SEQUENCE: 6
81 Lys Ala Thr Thr
82 1
84 <210> SEQ ID NO: 7
85 <211> LENGTH: 4
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87 <213> ORGANISM: Phleum pratense
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91 Lys Tyr Lys Thr
92 1
94 <210> SEQ ID NO: 8
95 <211> LENGTH: 138
96 <212> TYPE: PRT
97 <213> ORGANISM: Phleum pratense
99 <400> SEQUENCE: 8
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102 1 5 10 15
105 Val Leu Gly Leu Ala Thr Ser Pro Thr Ala Glu Gly Gly Lys Ala Thr
106 20 25 30
109 Thr Glu Glu Gln Lys Leu Ile Glu Asp Val Asn Ala Ser Phe Arg Ala
110 35 40 45
113 Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr
114 50 55 60
117 Phe Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala
118 65 70 75 80
121 Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
122 85 90 95
125 Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
126 100 105 110
129 Ala Phe Val Leu His Phe Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr
130 115 120 125
133 Pro Glu Val His Ala Val Lys Pro Gly Ala
134 130 135
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138 <211> LENGTH: 750
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145 attttcctcg ctgttgcgt tggccat ccccaactgc agagggaggg 120
147 aaggccacga ccgaggagca aaaattgatc gaggacatca atgccagctt tagggcggcc 180
149 atggccacca ctgctaacgt ccctccagca gacaagtata agacattcga agccgccttc 240

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151	acggtgtcct	caaagagaaa	cctcgctgac	gccgttcaa	aggcgccca	gctggtcccc	300
153	aagctcgatg	aagtctacaa	cgccgcctac	aatgctgccg	atcatgccgc	cccagaagac	360
155	aagtatgaag	ccttcgtcct	tcactttcc	gaggctctcc	acatcategc	cggtacccccc	420
157	gaggtccacg	ctgtcaagcc	cggcgcgtag	ttgttcagca	cggtaagat	ccttgacagc	480
159	gtcgctgcca	ccggcgctgc	agccaacact	gccagtggct	aaaaaaattcg	actagctcct	540
161	tcataacaatg	aatacacatg	tatcattcaa	acatactact	gtacagtatg	tgcatgacct	600
163	agcggcgagc	attttttta	tgattaaatct	tttatacatg	ggcgtgatcg	agcgtgtgca	660
165	tatgtgtaat	aattaatttt	ttatttgtat	ttgaaattgt	aatcctgata	agaaatgcga	720
167	ttaagtccat	ttatgaaaaaa	aaaaaaaaaa				750
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172	<212>	TYPE:	DNA				
173	<213>	ORGANISM:	Phleum pratense				
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178	ccgttgtgtt	gggcttggcc	acatccccaa	ctgcagaggg	aggaaaggcc	acgaccgagg	120
180	agcaaaaatt	gattgaggac	gtcaatgcca	gttttagggc	ggccatggcc	accactgcta	180
182	acgtccctcc	agcagacaaag	tataagacat	tcgaagccgc	cttcacggtg	tcctcaaaga	240
184	gaaacacctcgc	tgacccgtt	tcaaaggcgc	cccagctggt	ccccaaagctc	gatgaagtct	300
186	acaacgcgcgc	ctacaatgct	gccgatcatg	ccgccccaga	agacaagttat	gaagccttcg	360
188	tccttcactt	ttccgaggct	ctccgtatca	tcgcccgtac	ccccgaggtt	cacgctgtca	420
190	agccggcgc	gtagtttttc	agcacggtca	agatccttga	cagcgtcgct	gccaccggcg	480
192	ctgcagccaa	cactgcccagt	ggctaaaaaa	ttcgactagc	tccttcatac	aatgaataca	540
194	catgttatcat	tcaaaaaaaaaa	aaaaaaaaaa	a			571
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205	actgctaacg	tccctccagc	agacaagtat	aagacattag	aagccgcctt	cacggtgtcc	120
207	tcaaagagaa	acctcgctga	cgccgtctca	aaggcgcccc	agctcgcccc	caagctcgat	180
209	gaagtctaca	acgccccta	caatgctgcc	gatcatgccg	ccccagaaga	caagtatgaa	240
211	gccttcgtcc	ttcacttttc	cgaggctctc	cgtatcatcg	ccggtacccc	cgaggtccac	300
213	gctgtcaagc	ccggcgcgt	gttggcgtac	acggtaaga	tccttgacag	cgtcgctgcc	360
215	accgggtctg	cagccaaacac	tgccagtggc	taaaaagttc	gaccagctt	ttcatacaat	420
217	gaatacacat	gtatcttca	aacatactac	tgtacagtat	gtgcattgacc	tagccgcag	480
219	cattttttt	atgattaatc	ttttatacat	gggcgtgatc	gagcgtgtgc	atatgttaa	540
221	taattaattt	cttattttga	tttggaaatgg	taatcctgat	aagaaatgcg	attaagtcca	600
223	tttatgaaat	atagatggtc	cgtcgattt	taaaaaaaaaa	aaaaaaaaaa		647
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229	<213>	ORGANISM:	Phleum pratense				
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234	gacgcccgtt	caaaggcgcc	ccagctggc	cccaagctcg	atgaagtctt	caacgcgcgc	120
236	tacaatgctg	ccgatcatgc	cgccccagaa	gacaagtatg	aagccttgc	ccttcacttt	180
238	tccgaggctc	tccacatcat	cgcgggtacc	cccgagggtcc	acgctgtcaa	gccccggcg	240

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240	tagttgttca	gcacggtaa	gatccttgcac	agcgctcgctg	ccaccggcgc	tgcagccaa	300
242	actgccagt	gctaaaaaaat	tcgacttagct	ccttcataca	atgaatacac	atgtatcatt	360
244	caaacatact	actgtacagt	atgtgcata	cctagcggcg	agcatttttt	ttatgattaa	420
246	tctttatac	atggcgtga	tcgagcgtgt	gcataatgtt	aataattaat	tttttatttt	480
248	gatttgaaat	tgtatcctg	ataagaaatg	cgattaagtc	catttaaaaa	aaaaaaaaaa	540
250	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaa	aaaaaaa	aaaaaaa	572
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256	<213>	ORGANISM:	Phleum pratense				
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261	gccgatcatg	ccgccccaga	agacaagtat	gaaggcctcg	tccttcactt	ttccgaggct	120
263	ctccacatca	tcgcccgtac	ccccgagggtc	cacgctgtca	agcccggcgc	gtagttgttc	180
265	agcacggta	agatcctga	cagcgtcgt	gccaccggcg	ctgcagccaa	cactgcccagt	240
267	ggctaaaaaa	ttcgacttagc	tccttcatac	aatgaataca	catgtatcat	tcaaacatac	300
269	tactgtacag	tatgtgcata	acctagcgc	gagcattttt	tttatgatta	atctttata	360
271	catggcgtg	atcgagcgtg	tgcatatgt	taataattaa	tttttatttt	tgatttgaaa	420
273	ttgtatcct	gataagaaat	gcgattaagt	ccatttatga	aaaaaaaaaa	aaaa	474
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277	<211>	LENGTH:	554				
278	<212>	TYPE:	DNA				
279	<213>	ORGANISM:	Phleum pratense				
281	<400>	SEQUENCE:	14				
282	cagctggtcc	ccaagctcga	tgaagtctac	aacggccct	acaatgctgc	cgatcatgcc	60
284	gccccagaag	acaagtatga	agccttcgtc	tttcactttt	ccgaggctct	ccacatcatc	120
286	gccggtaccc	ccgaggtcca	cgctgtcaag	cccgccgcgt	agttgttcag	cacggtaag	180
288	atccttgaca	gctgcgtgc	caccggcgt	gcagccaa	ctgcccagtgg	ctaaaaatt	240
290	cgtactagctc	tttcatacaa	tgaatacaca	tgtatcattc	aaacatacta	ctgtacagta	300
292	tgtgcata	ctagccgcga	gcattttttt	tatgattaat	cttttataca	tggcgtgat	360
294	cgagcgtgt	catatgtgt	ataattaatt	tttttatttt	atttgaatt	gtaatcctga	420
296	taagaaatgc	gattaagtcc	atttatgaaa	tatagatggt	ctgtcggtat	ttaaaaaaa	480
298	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	540
300	aaaaaaaaaa	aaaa					554
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306	<212>	TYPE:	PRT				
307	<213>	ORGANISM:	Phleum pratense				
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315	Val Leu Gly Leu Ala Thr Ser Pro Thr Ala Glu Gly Gly Lys Ala Thr						
316	20	25	30				
319	Thr Glu Glu Gln Lys Leu Ile Glu Asp Ile Asn Ala Ser Phe Arg Ala						
320	35	40	45				
323	Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr						
324	50	55	60				
327	Phe Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala						
328	65	70	75	80			

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331 Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
332 85 90 95
335 Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
336 100 105 110
339 Ala Phe Val Leu His Phe Ser Glu Ala Leu His Ile Ile Ala Gly Thr
340 115 120 125
343 Pro Glu Val His Ala Val Lys Pro Gly Ala
344 130 135
347 <210> SEQ ID NO: 16
348 <211> LENGTH: 138
349 <212> TYPE: PRT
350 <213> ORGANISM: Phleum pratense
352 <400> SEQUENCE: 16
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359 20 25 30
362 Thr Glu Glu Gln Lys Leu Ile Glu Asp Val Asn Ala Ser Phe Arg Ala
363 35 40 45
366 Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr
367 50 55 60
370 Phe Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala
371 65 70 75 80
374 Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
375 85 90 95
378 Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
379 100 105 110
382 Ala Phe Val Leu His Phe Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr
383 115 120 125
386 Pro Glu Val His Ala Val Lys Pro Gly Ala
387 130 135
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391 <211> LENGTH: 106
392 <212> TYPE: PRT
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401 Ala Met Ala Thr Thr Ala Asn Val Pro Pro Ala Asp Lys Tyr Lys Thr
402 20 25 30
405 Leu Glu Ala Ala Phe Thr Val Ser Ser Lys Arg Asn Leu Ala Asp Ala
406 35 40 45
409 Val Ser Lys Ala Pro Gln Leu Val Pro Lys Leu Asp Glu Val Tyr Asn
410 50 55 60
413 Ala Ala Tyr Asn Ala Ala Asp His Ala Ala Pro Glu Asp Lys Tyr Glu
414 65 70 75 80
417 Ala Phe Val Leu His Phe Ser Glu Ala Leu Arg Ile Ile Ala Gly Thr
418 85 90 95
421 Pro Glu Val His Ala Val Lys Pro Gly Ala

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/696,169A

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TIME: 16:04:12

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